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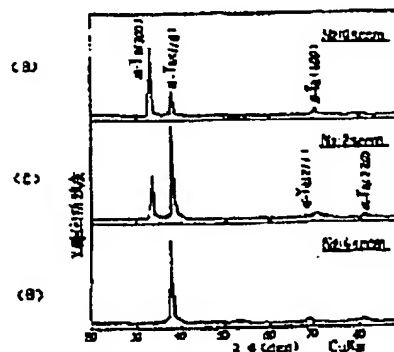
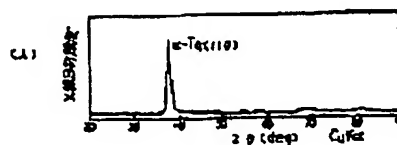
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APPLICANT : SHARP CORP;

INVENTOR : UENISHI SHIGERU;

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TITLE : METALLIC THIN-FILM AND MANUFACTURE THEREOF



ABSTRACT : PURPOSE: To obtain the constitution of a metallic thin-film, in which chemically stable tantalum having high mechanical strength is formed only in cubic crystal structure (α phase) having low resistivity, and manufacture thereof.

CONSTITUTION: In the formation of a tantalum thin-film through a sputtering method, a target, to which niobium is added previously, or a target, in which niobium and tantalum are made independent, is used, thus forming the tantalum thin-film in cubic crystal structure, which is the same as niobium and the resistivity of tantalum is lowered, by adding niobium or depositing the tantalum thin-film on the thin-film of niobium. A tetragonal system having high resistivity generated by manufacturing the tantalum thin-film through a conventional nitrogen addition method and the generation of a tantalum nitride as an insulator can be inhibited through a method, in which niobium is used, in this invention.

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